DOCUMENT RESUME

ED 430 145 CE 078 685

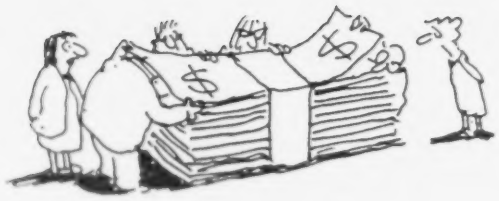
AUTHOR Sedgwick, Steve
TITLE Education, Training and Youth Affairs--Issues and Public Policy Responses.
INSTITUTION Australian Council of Social Service, Strawberry Hills.
PUB DATE 1998-11-00
NOTE 18p.; Paper presented at the National Congress of the Australian Council of Social Science (ACOSS) (Adelaide, South Australia, Australia, November 5-6, 1998).
AVAILABLE FROM Australian Council of Social Service, Locked Bag 4777, Strawberry Hill, New South Wales 2012, Australia.
PUB TYPE Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Delivery Systems; *Education Work Relationship; Educational Legislation; Elementary Secondary Education; Federal Government; Federal State Relationship; Foreign Countries; Government School Relationship; Job Training; *Lifelong Learning; Postsecondary Education; *Privatization; *Public Policy; *Vocational Education
IDENTIFIERS *Australia

ABSTRACT

Education and training in Australia represent a significant sector of the economy, comprising some 7 percent of the Gross Domestic Product. Public policy is fashioned to support three main sectors: schools, vocational education and training, and higher education. The mix of Commonwealth policy across these sectors is determined by distribution of federal responsibilities and emerging needs of the sector and the community. A major issue for public policy is the very rapid development of the knowledge economy and its meaning for the future of learning and work. Particular issues concern the meaning of the concept of lifelong learning, how best to smooth the transitions between learning and work and between learning experiences, and the very wide gap that still remains between indigenous and nonindigenous Australians in levels of educational access, participation, progression, performance, and outcomes. Significant developments in government/public administration are shaping the type of policy responses available for public support and delivery of education and training. The main trend is the growing use of private providers in a contestable delivery framework. Consequences of the separation of purchaser and provider (policymaker and policy implementer) are greater transparency of costs and new challenges in risk management. (Six tables illustrate changes in employment by occupation, high growth occupations, declining occupations, and industry changes in expenditure on training.) (Author/YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 430 145



facing and financing the future

ACOSS National Congress '98

Adelaide 5-6 November

Congress paper

Education, training and youth affairs – issues and public policy responses

Steve Sedgwick
Secretary, Dept of Education, Training and Youth Affairs

Australian Council of Social Service

Level 2
619 Elizabeth St
Redfern

Locked Bag 4777
Strawberry Hills
NSW 2012

Ph [02] 9310 4844
Fax [02] 9310 4822

<acoss@acoss.org.au>
www.acoss.org.au

U.S. DEPARTMENT OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

D. Wilson

BEST COPY AVAILABLE

EDUCATION, TRAINING AND YOUTH AFFAIRS
ISSUES AND PUBLIC POLICY RESPONSES

ACOSS NATIONAL CONFERENCE 1998
5-6 NOVEMEBER, ADELAIDE

Abstract

Education and training in Australia represents a significant sector of the economy, comprising some 7% of GDP. Public policy for education and training is fashioned to support three main sectors (each with a distinct mission and attributes): schools; vocational education and training; and higher education. The mix of Commonwealth policy across these sectors is determined by the distribution of federal responsibilities and the emerging needs of the sector and the community.

A major issue for public policy is the very rapid development of the "knowledge economy" and what that means for the future of learning and work. Particular issues include the meaning of the concept "lifelong learning" and how best to smooth the transitions between learning and work and between learning experiences. The Commonwealth cannot address many of these issues by itself and much of the discussion canvasses cooperative action with the States and Territories. There are also significant developments in government/public administration that are shaping the type of policy responses available for public support and delivery of education and training.

Background

Education and training in Australia represents some 7% of GDP (including expenditure by firms and transfers to households). Most of this is public expenditure but there is a growing proportion of private expenditure. The following table provides some key statistics for 1997 on the activity.

	Schools	VET	Higher Ed.
Students	3 172 000	1 460 000	658 800
Public Funding			
- Commonwealth	$3.8 billion	$1.3 billion	$4.4 billion
- States	$11.5 billion	$2.1 billion	$0.124 billion
Private Funding	$2.5 billion in non-govt schools $0.454 billion in govt schools	$2.5 billion by firms $2.2 billion wage/ salary costs $0.8 billion by individuals	$1.2 billion HECS $1.2 billion fees/ charges $1.2 billion other (investment revenue + commercial income)
Providers			
- Public	7 029 govt schools	80 TAFE institutes having 300 campuses	43
- Private	2 580 non govt schools	1 300 600 community providers.	2 universities 35 colleges

The table reflects some important differences between the sectors. For example, most of the private spending in the higher education sector comprises contributions (including full fees) towards the cost of publicly regulated award courses, whereas in the vocational education and training sector most of the private spending is that part of the vocational education and training market where the skills acquired are not formally recognised.

Some of the 1 300 registered private vocational education and training providers are delivering some publicly funded/publicly recognised training as part (or all in some cases) of their business – the rest seek registration to create the option of bidding for public funds and to gain a market edge in the private market. The 37 private providers in the higher education sector receive no funding from the Commonwealth though they issue degrees and other awards.

The broader policy issues relating to the mix of public and private activity fall into four main areas: the compulsory nature of foundation learning; the growing social and economic importance of further learning; the match of skills supply and demand across the economy; and private returns from education and training.

BEST COPY AVAILABLE

The Main Policy and Service Delivery Issues

The Shifting Demand for Skills

The Australian National Training Authority (ANTA) assists the States and Territories with analysis of changes in the skill requirements of industry. The States and Territories are progressively shifting their vocational education and training planning systems to take account of the needs of industry and other client groups. The tables at Attachment A provide an insight into the changing demands which the education and training system face.

Significant growth shown in Table A1 over the decade 1987-1996 in employment of managers, administrators, professionals, salespersons and personal service workers points to a structural shift in the economy that reflects the phenomenal growth in knowledge and its use. Tables A2 and A3 show more detailed information when the growth and decline in employment over the same period at the level of minor occupational group. This shows very rapid growth in demand for a range of skilled professionals and in retail and hospitality areas, but sharp declines in many "traditional" trades areas.

Knowledge Economy/Future of Work

The data on the changing patterns in the Australian labour market raise questions about the future of work and point to a very significant increase in the numbers of workers engaged in what is known as the "knowledge economy". There are also major shifts in the geographical distribution of employment as developments in information technology enable firms to spread their operations across regions and borders to capture cost efficiencies. The demand from firms for highly skilled workers grows apace, and school leavers are entering an increasingly globalised labour market.

Some analysts talk of a growing disparity in Australia in incomes and opportunities between "knowledge workers" whose skills are in high demand and "routine producers" (from factory hands to clerks to back office workers in the finance sector) whose labour is relatively unskilled and competes with cheaper labour elsewhere in the region. The role of the education and training system in this context is to maximise the options for existing workers and new entrants to the labour market to develop the range of skills required for a rewarding working life.

As discussed above, the capacity of the education and training sectors to respond to shifts in demand in the economy has been an issue for some time. The central question for policy is the balance to be struck between provision of general skills and provision of more firm/industry specific skills. Service delivery challenges that arise here include the regulation of course awards and the governance arrangements for providers.

Curriculum development for schools is primarily the responsibility of States and Territories, as is school administration. The Commonwealth nonetheless has a significant leadership role in helping with establishing national standards and goals for schooling. The shared nature of the responsibility of governments for schools is reflected in National Goals for Schooling agreed by the Ministerial Council for Employment, Education, Training and Youth Affairs (MCEETYA) in 1998. These goals are currently being reviewed.

Vocational education and training is jointly administered by the Commonwealth and the States under the auspices of the ANTA Ministerial Council. The agreed National Strategy for Vocational Education and Training 1998-2003 provides the framework for public delivery by the States and Territories and ANTA. The Strategy recognises the emergence of the "knowledge economy" and sets objectives for the system that build greater responsiveness to the changing world of work.

The primary instrument for building vocational education and training provider responsiveness to industry skill requirements is the recently implemented National Training Framework which enables registered training providers to self accredit courses within a quality assurance framework that includes direct industry input to the development of training packages. The Framework also involves mutual recognition between the States and Territories of qualifications and course awards so that certified skills are nationally portable. For providers to be able to make best use of the Framework they need to have some flexibility in resource allocation to shift resources away from declining areas and towards growth areas.

Higher education is one of the drivers of the "knowledge economy". The skills acquired by students in the sector are often in high demand in growth areas of the economy and research activity undertaken in the sector contributes to the "stock of knowledge" in the economy. The Commonwealth has responsibility for higher education, with State legislation establishing universities that generally have considerable autonomy.

At a time of increasing internationalisation of higher education, manifesting itself in growing student and faculty flows across borders, and increasing diversification in the teaching, course offerings and governance of universities, quality issues and perceptions of quality are important to the ongoing competitiveness of the higher education sector. Unlike many other countries, Australian higher education institutions are self-accrediting. In the Government's first term universities were, for the first time, required to develop and implement quality assurance processes. Work has also been undertaken on improving and publishing performance indicators for the sector, and course and employer satisfaction surveys. Preliminary work has also been done on the development of an Australian equivalent of the US Graduate Record Exam (which measures the quality of graduates) and Australian participation in an international higher education quality benchmarking project.

Learning

There is a very important set of questions about learning that require closer examination, particularly in relation to: foundation learning; learning through life; and learning for work.

Foundation learning prepares students for life, further learning and work. The central question for policy is what skills and attitudes does the community expect that students have at the end of years 10 and 12, and how de we know they have acquired them.

A major review of the national goals for schooling is being undertaken through the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). This involves strengthening the 1989 national goals so that they provide clearer statements of what is expected from schooling in Australia, particularly in relation to student learning outcomes. These are to be underpinned, where appropriate, by measurable targets.

The review should report to Ministers late in 1998 or early in 1999 and provides an opportunity to build key aspects of the Government's schools agenda into a national agreement on learning outcomes. No doubt the goals finally agreed will preserve a strong focus on raising education standards (including in respect of literacy and numeracy).

It is increasingly acknowledged that individuals need to be well-prepared to undertake lifelong learning because individuals leaving school may need to change their careers several times throughout a working life. It is important that they develop the skills and attitudes which facilitate learning, not only during their formative years but in the 40s and beyond. However, there is not yet a clear consensus about what is an appropriate foundation for lifelong learning.

Most students acquire their foundation learning skills by completing secondary school with its traditional orientation towards the more academic subjects. Increasingly, however, there is recognition that the vocational learning style is appropriate for many individuals seeking to acquire the range of competencies needed to support them in the world of work and as effective members of society.

One manifestation of this is the greater attention being given to "VET in Schools" as a learning style without devaluing the competency level acquired by the student. More generally, the vocational education and training system provides some non-school-based avenues for individuals to acquire foundation skills. This is through the general education stream provided by the TAFE sector to students of upper secondary school age and a range of "second chance" opportunities to more mature students. These can include pre-vocational courses to improve literacy and numeracy as well as more general courses for the more mature student.

The Transition from School to Work

Young people in Australia face a very different set of issues in making the transition from school to work than previous generations. Structural change in the economy has eliminated many jobs once done by young people and the rapidly emerging "knowledge economy" is demanding ever greater and more complex levels of skills. The labour market is generally more demanding. Employers want young people who are prepared to accept the responsibility of delivering results on time.

The portfolio manages a suite of programmes that are designed to facilitate this transition, including New Apprenticeships, Jobs Pathways and the Jobs Placement Education and Training Programme. Funds from the schools and vocational education and training systems are also used to promote VET in schools as a legitimate learning style in conjunction with more academic learning. For the 70% of school leavers who do not go on directly to university the vocational education and training sector provides a very wide range of learning and skill development opportunities to assist with gaining employment.

Some 75% of post-secondary students participate in vocational education and training courses. These courses are typically of shorter duration and have different (sometimes less stringent) entrance criteria than university courses. In some cases the vocational stream can provide an alternative entry to university for mature-aged students. A relatively small but growing number, though, of university students are also seeking VET-type qualifications after graduation.

The destination of school leavers is shown in the following table. Year 12 student retention and completion rates are provided in table A5 at Attachment A. For those students not going on to university, VET in schools and post school opportunities in the vocational education and training sector are becoming increasingly important.

Destination of school leavers by labour force status and type of tertiary institution attended, Australia (selected years)

Labour force status or tertiary institution, year after leaving school	Year highest level of school completed (per cent)				
	1991	1993	1995	1996	
	Total [1]	Total [1]	Total [1]	Year 10	Year 12
Employed	24	25	26	40	24
Unemployed	17	15	10	17	7
Higher Education	27	27	32	*	41
TAFE	24	25	25	29	20
Other	8	8	6	15	9
Total	**100**	**100**	**100**	**100**	**100**
Total Number	**265 200**	**251 300**	**234 000**	**44 500**	**166 000**

Source: *ABS Labour Force Survey* (unpublished data)
* Estimate is statistically unreliable.
[1] Includes persons whose highest level of school completed was other than Years 10 or 12.

Some sources of pressure on the vocational education and training system:

- the ever present issue of apparently unmet demand;
- the need to increase the take-up of new apprenticeships, the on-the-job training component of which is traditionally funded by States; and
- the need to support greater recourse to the vocational education and training system to support increased participation in formal education and training in order to support lifelong learning. Currently some 9% of 30-49 year olds undertake vocational education and training in the publicly funded system. A greater focus on lifelong learning may increase both the frequency and duration of training activity by this cohort in future years.

Under the current ANTA Agreement States and Territories collectively plan to deliver an estimated 44 000 additional student places in 1998 by achieving growth through efficiencies (and in some cases, additional State funding). Preliminary indications are that most States and Territories are making concerted efforts to improve efficiency and devote gains to growth.

There is little doubt that scope exists to support growth of the vocational education and training system through efficiencies. ANTA's analysis and the experience of Victoria clearly support this finding (see table below), although variation in vocational education and training

BEST COPY AVAILABLE

unit costs between States and Territories is not a complete indicator of the scope for efficiencies. Differences in unit costs between jurisdictions can arise in relation to cost factors, geographic dispersion, industry mix and population characteristics as well as the relative efficiency of the system.

Vocational Education and Training Unit Costs, 1996 and 1997 –Government funded, By State/Territory ($ per Annual Hours Curriculum in 1997 prices)

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUS
1996	12.0	9.7	11.7	14.5	12.5	15.4	23.5	16.8	11.8
1997	12.0	8.9	11.7	12.8	12.4	14.6	26.5	15.6	11.4

Source: Vocational Education and Training Performance 1997, Volume 3 Annual National Report 1997, Australian National Training Authority (ANTA).

The higher education sector caters to some 30% of school leavers seeking to expand their repertoire of skills. The sector also imparts highly valuable skills in critical analysis. The evidence clearly shows that higher education graduates fare relatively well in the labour market.

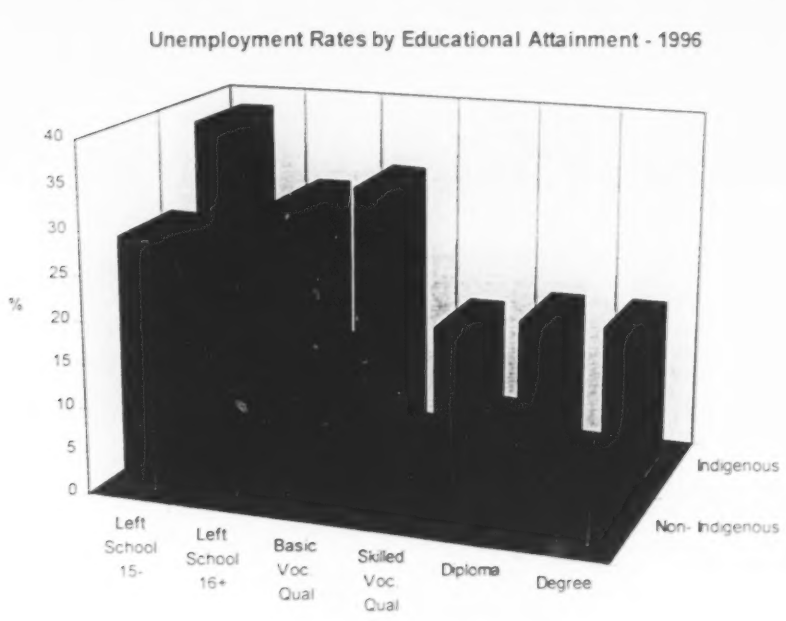
Increasingly, the transition from school to work is involving
both workplace and vocational skill activities in schools in conjunction with more academic learning, and a wide array of post school education and training options across the vocational education and training and higher education sectors to strengthen the skills of school leavers making the transition to work and throughout their working lives.

Indigenous Education and Training

Indigenous Australians suffer higher levels of educational disadvantage than any other group in the Australian community. While some significant progress has been made over the last decade - largely as a result of targeted Commonwealth intervention - a very wide gap still remains between Indigenous and non-Indigenous Australians in levels of educational access, participation, progression, performance and outcomes.

While the percentage of Indigenous students staying to year 12 more than doubled between 1989 and 1997 - from 14 per cent to about 30 per cent nationally - this percentage would need to more than double again to approach the retention rate of the general population, which exceeds 70 per cent. Indigenous students record markedly lower levels of literacy and numeracy achievement at primary school than the general population; have far higher rates of absenteeism and truancy; are far less likely to continue their education beyond the compulsory level; and are less likely again to achieve a post-school qualification with currency in the labour market.

Educational attainment is vitally important to success in the labour market for Indigenous Australians as for other Australians. As the following graph illustrates however, even where young Indigenous Australians achieve the same levels of educational qualification as their non-Indigenous counterparts, they subsequently experience higher rates of unemployment - even when geographic and other differences are taken into account:



While there are many factors contributing to this, it is clear that more effective strategies are needed to help young Indigenous Australians to benefit from eduction and in moving from school to work.

Many Indigenous Australians suffer from multiple disadvantages, in that their access to education and employment is constrained by poverty, poor health and sub-standard housing. A comprehensive strategy for tackling educational disadvantage will therefore require coordinated action on a number of fronts.

While the Commonwealth provides substantial funding to support Indigenous education, the delivery of these education services is the responsibility of the States and the school systems. This is reflected in the fact that the National Aboriginal and Torres Strait Islander Education Policy (AEP) was jointly agreed between the Commonwealth and the States some 10 years ago under the auspices of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). The AEP establishes some 21 long term goals regarding the level of education access, participation and outcomes achieved by other Australians. The current review of Australia's Common and Agreed Goals for Schooling provides a timely opportunity to revisit specific goals in relation to Indigenous students and national targets for a range of goals including literacy and numeracy.

The portfolio manages two large targeted programmes (Indigenous Education Strategic Initiatives and Indigenous Education Direct assistance) which are being progressively refocussed to support increased accountability by States and systems for their performance in respect of Indigenous education. This approach is very much in its infancy, with 1998 the first attempt to get systems and States to articulate and be held accountable for measurable performance targets. The experience has been instructive but needs to be taken further. Greater clarity in the national goals, referred to above, would provide an important underpinning.

BEST COPY AVAILABLE

Developments in Public Administration

The main trend in public administration affecting delivery of education and training is the growing use of non-public providers in a contestable delivery framework. This is part of a trend toward separation of purchaser and provider that may involve placing public providers at arms length from the government as purchaser within the government machinery (through administrative and/or statutory means), or contracting private providers by tender to deliver services. Other influences on the evolution of the APS include:

- a sustained period of fiscal constraint leading to pressures on resourcing;
- pressure on all sectors of the economy to perform at their best so as to support rising living standards;
- increasing and changing demands from citizens and government for new and improved services and high quality policy positions;
- demands for high ethical standards and accountability;
- opportunities from advances in technology.

Service industries the world over have undergone major re-engineering over recent years – and so must public services. The demands of our stakeholders are very clear: cut the cost and raise the quality of government service delivery. There are constant demands for greater client responsiveness (at affordable cost) being made of the processes of government Moreover, governments around the country are also seeing themselves as having more choice about how services are delivered. Increasingly they want to choose the most efficient and effective producer of a desired outcome, whether from within the public service or from other sources. At the same time, Information Technology is revolutionising the potential ways of delivering Government services, not only by automating existing processes, but by enabling new and innovative ways to achieve objectives.

The separation of purchaser and provider (or the policy maker and the policy implementer) introduces the need to manage the risk that policy could be formulated in a vacuum if appropriate feedback loops are not designed in at the start. Risk already exists in our present management structures – higher level managers already face these issues, even in instances in which they are managing departmental employees. The big difference in the contestable environment is the consequence of any failure to build in appropriate systems at the start. In a contestable framework it is far more difficult to change the arrangements after the event.

Many services previously delivered directly are now purchased or administered through contracts, which are usually awarded through competitive tender. Programmes delivered in this way include literacy and numeracy training, career counselling, the Job Placement, Education and Training Programme, the Job Pathways Programme and Green Corps.

These new arrangements complement the Department's traditional role in respect of the education sectors, where policy implementation is largely (though not wholly) pursued through grants to universities, schools and school systems, and the vocational education and training sector. In some cases, the funding has been provided through a third party such as State education authorities in the case of government schools and the Australian National Training Authority in the case of vocational education and training.

One of the consequences of doing business in this fashion is greater transparency of costs. We are now developing a more thorough understanding of what it costs to deliver these services.

The introduction of the new accrual-based budget reforms is timely because it will provide a tool for assessing the total cost of business activities. Similarly, these developments complement the trend towards output based budgeting by requiring a clear specification of what is to be purchased.

The purchaser/provider structure also presents new challenges in respect of risk management. Policy constantly needs to be refined and updated. Arrangements need to be put in place to minimise the costs of change, especially when managing a programme across a contractual or quasi-contractual framework. Clear articulation at the planning stage of policy goals and the risks to their achievement can help to minimise such transaction costs. These are traditional policy-related risks that experience suggests are best assessed early and in a transparent fashion.

The changing nature of the Department's business is reflected in the trend to greater integration of its disparate policy interests. Greater policy focus on pathways between education, training and employment, for example, and growing recognition of the links between education outcomes and subsequent employment prospects led to more integrated policy development and programme delivery across the range of the Department's operations. Both agencies recognise that it will be important to preserve these links with the transfer of the employment function to the workplace relations portfolio.

Attachment A

Table A1: Changes in employment by major occupational group, Australia, 1987-1996

Occupational group	Employment ('000s) 1987	Employment ('000s) 1996	% change
Managers and administrators	783.8	889.4	13.5
Professionals	868.7	1171.2	34.8
Para-professionals	427.0	476.7	11.6
Tradespersons	1128.6	1200.8	6.4
Clerks	1224.5	1360.4	11.1
Salespersons and personal service workers	989.1	1409.9	42.5
Plant and machine operators and drivers	566.2	571.0	0.8
Labourers and related workers	1112.3	1221.4	9.8
Total	**7100.2**	**8300.8**	**16.9**

Source: NCVER, The Outlook for Training in Australia's Industries, 1998 (ANTA)

BEST COPY AVAILABLE

Table A2: High growth occupations at the minor group level, Australia, 1987-1996

Minor occupation group	Growth 1987-1996 No. ('000s)	%
Specialist managers	59.4	36
Managing supervisors (not sales and service)	31.8	35
Health diagnosis and treatment practitioners	31.0	36
Other teachers and instructors	43.6	53
Social professional	25.4	49
Business professionals	139.8	85
Misc. professionals	21.8	59
Medical and science technical officers and technicians	15.8	68
Amenity horticulture trades	15.1	34
Data processing operators	39.1	47
Receptionists/telephonists and messengers	72.9	45
Sales representatives	36.1	38
Sales assistants	170.3	39
Tellers/cashiers/ticket sales	53.5	44
Personal service workers	93.1	80

Source: NCVER, The Outlook for Training in Australia's Industries, 1998 (ANTA)

BEST COPY AVAILABLE

Table A3: Minor occupational groups that declined in numbers, Australia, 1987-1996

	Change in employment	
Minor occupation group	**No. ('000s)**	**%**
Farmers and farm managers	-20.0	-8
Engineering and building associates and technicians	-8.9	-10
Metal fitting and machining trades	-18.4	-14
Printing trades	-4.5	-10
Stenographers and typists	-26.9	-10
Miscellaneous clerks	-78.4	-45
Stationary plant operators	-6.5	-10
Machine operators	-31.7	-19
Construction and mining labours	-24.9	-18

Source: NCVER, The Outlook for Training in Australia's Industries, 1998 (ANTA)

BEST COPY AVAILABLE

Table A4: Industry changes in expenditure on structured training in the September quarter, Australia, 1993-1996

Industry	Percentage change in training Expenditure per employee
Mining	+30.5
Manufacturing	-5.5
Electricity, gas, water	+25.6
Construction	-25.5
Wholesale	-15.5
Retail	+18.7
Accommodation, cafes and restaurants	-14.6
Transport and storage	+13.1
Communication services	-29.6
Finance and insurance	+13.0
Property and business services	-15.2
Government administration	+11.2
Education	+23.1
Health and community services	-13.6
Cultural and recreational services	-17.6
Personal and other services	+1.3
All industries	**-3.0**

Source: NCVER. The Outlook for Training in Australia's Industries, 1998 (ANTA)

BEST COPY AVAILABLE

Table A5: Distribution of Government funded Vocational Education and Training – 1998 Estimates

Training area	Annual hours curriculum ('000s)	% of share of total
Arts, entertainment, sport and recreation	12 699	5.2
Automotive	8 556	3.5
Building and construction	16 251	6.6
Community services, health and education	23 561	9.6
Finance, banking and insurance	3 014	1.2
Food processing	3 557	1.4
TCF and furnishings	4 970	2.0
Communications	2 110	0.9
Engineering and mining	15 605	6.3
Primary industry	13 037	5.3
Process manufacturing	613	0.2
Sales and personal service	7 919	3.2
Tourism and hospitality	19 351	7.9
Transport and storage	2 325	0.9
Utilities	11 336	4.6
Business and clerical	41 667	16.9
Computing	13 283	5.4
Science, technical and other	9 827	4.0
General education and training	36 225	14.7
Un-allocated	280	0.01
Total	**246 187**	**100.0**

Source: NCVER, The Outlook for Training in Australia's Industries, 1998 (ANTA)

BEST COPY AVAILABLE

Table A6: Year 12 student retention and completion rates: 1991 to 1997 (selected years)

	1991	1993	1995	1996	1997
	Retention rate (per cent)				
Males	66	72	67	66	66
Females	77	81	78	77	78
Indigenous Australian Students					
Year 10	82	79r	76	76	81
Year 12	*	*	31	29	31
All students	**71**	**77**	**72**	**71**	**72**
	Estimated completion (per cent)[1]				
High socioeconomic status[2]	79	78	77	76	73
Low socioeconomic status[2]	63	65	61	59	60
Urban	71	71	69	68	66
Rural	68	67	62	60	64
Remote	57	58	52	51	52
All students	**69**	**69**	**67**	**65**	**65**

* National data is not available

r revised

[1] 1997 estimated completion data is preliminary based on 1996 estimated resident population.

[2] Socioeconomic status is derived from the *ABS Socioeconomic Indexes for Areas*.

Sources: *ABS Schools, Australia 1997*, Cat. No 4221.0, and earlier related publications.
DEETYA (derived from data provided by State education authorities and the ABS).

BEST COPY AVAILABLE